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| 10/598,129      | 08/18/2006  | Rodney Martin Sambrook | S1011/20206         | 1362             |

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| EXAMINER |
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STELLING, LUCAS A

|          |              |
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| ART UNIT | PAPER NUMBER |
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1797

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07/24/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@crbcp.com

|                              |                                      |                                                |  |
|------------------------------|--------------------------------------|------------------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/598,129 | <b>Applicant(s)</b><br>SAMBROOK, RODNEY MARTIN |  |
|                              | <b>Examiner</b><br>Lucas Stelling    | <b>Art Unit</b><br>1797                        |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 8-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/18/2006</u> .                                               | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-7, drawn to a method of treating a process stream.

Group 2, claim(s) 8-11, drawn to a method of fabricating chemical reactor filter material.

Group 3, claim(s) 12-17, drawn to a filter material.

2. The inventions listed as Groups 1, 2 and 3 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common technical feature between the 3 groups of claims are porous bodies wherein the porosity is between 65% and 90%. Porous bodies with a porosity of 81% are taught in U.S. Patent No. 5,563,106 to Binner ("Binner") (**col. 7 line 31**), and the reference generally teaches porous bodies within the range of 20-95% (**col. 4 line 45**).

3. During a telephone conversation with attorney Michael Cornelison on July 10, 2008 a provisional election was made **without** traverse to prosecute the invention of Group 1, claims 1-7. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8-17 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### *Specification*

4. The disclosure is objected to because of the following informalities: page 3 of the specification, bottom line, has text which is clipped.

Appropriate correction is required.

5. The specification references a non-patent literature publication: K. S. Chou, L. J. Lee, "Effects of Dispersants on the Rheological Properties and Slip Casting of concentrated Alumina Slurries." J. Amer. Ceram. Soc"; (1989) 72 (9); pp 1622-1627.

The examiner requests that applicant provide a copy of this article for consideration and placement in the application file.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "the pores are interconnected", does not reasonably provide enablement for "the pores are all interconnected" (emphasis added). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. Determination that the pores are all interconnected requires undue experimentation.

8. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, because the specification while being enabling for "porosity exceeding 70%" does not reasonably provide enablement for "the density of the body ranges from about 10% to about 30% of theoretical density." The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention

commensurate in scope with these claims. A determination of the density with respect to the theoretical density of the ceramic requires undue experimentation and the specification lacks a standard for measuring the degree of actual density with respect to theoretical density.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-4, and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by WIPO Publication No. WO03/071106 to Ajisaka et al. ("Ajisaka") (Note: also published as U.S. 2005/0147541 in English).

11. As to claims 1-4 Ajisaka teaches a method of treating a process stream by catalysis, comprising passing the process stream through a chemical reactor containing catalytic **(the chemical reactor is a diesel exhaust gas purifier or catalytic converter)** material and including the step of passing the process stream through a layer of material located in the reactor the layer comprising shaped porous bodies of ceramic material **(See Figs 4 and 5, and [0091] of the English publication)**, the porosity being from about 65% to about 90% **(See [0065] of English translation, porosity is 70-80%, 80% exceeds 75%)**, the pores being defined by struts and walls in at least some of which windows are formed to allow fluid communication between adjacent pores **(See Fig. 3, struts connected pores which are enclosed in walls.**

**The communications channels, which reads on windows, between different pores are sized between is 10-50µm, which is less than 450µm; and the pore size is 500µm which is between 50µm and 1500µm).**

12. As to claim 6, catalytic coating is taught (**See [0003] of the English translation**).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claim 5 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ajisaka.

16. As to claim 5, Ajisaka teaches that the bulk relative density, or bulk specific gravity of, 0.28 which is between 0.1 and 0.3. In the alternative it would have been obvious to a person of ordinary skill in the art to optimize the density of the ceramic bodies for the particular filtering application they are to be used in.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ajsaka in view of U.S. Patent No. 4,641,496 to Wade ("Wade") and U.S. Patent No. 4,276,066 to Bly et al. ("Bly").

18. As to claim 7, Ajsaka teaches the method of claim 1, but Ajsaka does not teach that the porous ceramic bodies are held in a rotating wheel or slide configuration. Both Bly and Wade teach the use of a moving member for blocking part of the ceramic filter element for regeneration purposes (**See Bly Fig. 1, and Wade Fig. 1**). It is within the skill of a person of ordinary skill in the art to reverse the operation of the device and rotate the filter member in front of a stationary blocking shield. See MPEP 2144.04(VI)(A). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to hold the filter material in a rotating wheel configuration and expose only a portion of it at any one time in order to provide for a regenerative process to the material.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Stelling whose telephone number is (571)270-3725. The examiner can normally be reached on Monday through Thursday 12:00PM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew O Savage/  
Primary Examiner, Art Unit 1797

las